IN THE FEDERAL COURT OF AUSTRALIA)

NEW SOUTH WALES DISTRICT REGISTRY)   No. N1260 of 2002

MICROSOFT CORPORATION

First Applicant

MICROSOFT PTY LIMITED

Second Applicant

INTERTRUST TECHNOLOGIES CORPORATION

Respondent

SECOND AFFIDAVIT OF MICHAEL JOHN HITCHENS

On/2March 2004, I, Michael John Hitchens of 38 Marsden Street, Parramatta, New South Wales,

University lecturer, say on oath:

1   I am a Senior Lecturer in the Department of Computing at Macquarie University, Sydney, Australia.

2   On 30 October 2002, I was retained by Microsoft Corporation in relation to this matter.

3   On 3 December 2003, I swore an affidavit in relation to this matter ("my **First Affidavit**"). I repeat paragraphs 3 to 24 of my First Affidavit. Terms defined in my First Affidavit have the same meaning in this affidavit.

4   For the purposes of my First Affidavit, I was asked to focus on the independent claims, and give less attention to the dependent claims. See paragraph [26] of my First Affidavit.

5   I have now been asked, for the purposes of this affidavit, to assess the following dependent claims of the Patent: 24, 27, 28, 31 and 32. Specifically, I have been asked by Mallesons to do the following:

   (a)   to assess claims 24, 27, 28, 31 and 32 of the Patent by reference to whether I considered the invention described was new or different to what was known or used in Australia in February 1997;

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136

(b)   as part of the above, to consider various publications and compare them to these claims; and

(c)   to further consider whether there are terms or concepts in these claims which are unclear, not explained or not described in the body of the Patent.

6   Mallesons also asked me, in respect of claim 21, to consider several publications I did not discuss in the context of claim 21 in my First Affidavit.

7   I will discuss claim 21 first, since claims 24, 27, 28, 31 and 32 are dependent on it. I will then discuss each of claim 24, 27, 28, 31 and 32 in turn.

8   For each claim, I will discuss my understanding of the meaning of the claim, and then review the prior art relevant to the claim. At the beginning of each discussion of a claim, I have included the text of the claim in full. As I did in my First Affidavit, I have numbered the elements or steps of the claim with the letters [A], [B], [C], etc. for ease of reference.

CLAIM 21

9   Claim 21 is as follows:

"A method of creating a first secure container, said method including the following steps;

[A] accessing a descriptive data structure, said descriptive data structure including or addressing

[A1] organization information at least in part describing a required or desired organization of a content section of said first secure container, and
[A2] metadata information at least in part specifying at least one step required or desired in creation of said first secure container;

[B] using said descriptive data structure to organize said first secure container contents;
[C] using said metadata information to at least in part determine specific information required to be included in said first secure container contents; and
[D] generating or identifying at least one rule designed to control at least one aspect of access to or use of at least a portion of said first secure container contents."
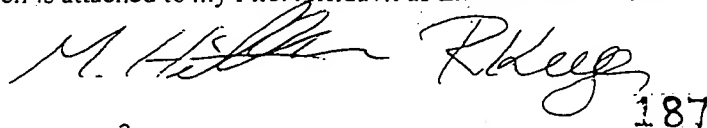
10   In my First Affidavit, I discussed in paragraphs [129] to [150] my understanding of claim 21 and outlined the parts of claim 21 that are unclear or not explained in the body of the Patent.

11   I considered the '733 patent and the Benson patent in relation to claim 21 in my First Affidavit. On instructions from Mallesons, I have considered the following additional documents in relation to claim 21:

(a)   the Warwick paper, which is attached to my First Affidavit as Exhibit MJH-11; and

187

(b)   the Bento specification, which is attached to my First Affidavit as Exhibit MJH-14.

I considered the Warwick paper and the Bento specification in my First Affidavit in relation to claims 1 and 45.

12.   For the reasons set out below, I am of the opinion that the Warwick paper and the Bento specification, when read individually, each describe each and every step of claim 21 of the Patent.

13   I will now discuss each of these references below, in relation to claim 21 of the Patent.

The Warwick paper with respect to claim 21

14   The Warwick paper describes an architecture called the Warwick Framework, which resulted from a metadata workshop in Warwick, U.K., in April 1996. The result of the Warwick workshop was a proposal for a creating containers of content and metadata according to the Warwick Framework Architecture.

15   Content containers created in accordance with the Warwick Framework Architecture may be secure ("first secure container" in the preamble of claim 21). See paragraph [224] of my First Affidavit. The Warwick paper sometimes refers to these secure containers as "objects". See the Warwick paper, section 9.4 on page 21 titled "Distributed Object Implementation".

16   The Warwick paper cites and describes "structural data" as an example of the metadata it proposes to containerise in metadata containers:

> structural data - This is data defining the logical components of complex or compound objects and how to access those components. A simple example is a table of contents for a textual document. A more complex example is the definition of the different source files, subroutines, data definitions in a software suite. (section 6.1, pp. 7 to 8)

17   For the reasons I explain below, this "structural data" is, in my view, the same as the "descriptive data structure" referred to in step [A] of claim 21.

18   It is clear from the term "structural data" quoted above, and the Warwick paper's explanation of it, that it includes structural information ("organizational information") describing the organization of components in an "object" ("content" in a "first secure container").

19   The Warwick paper is not directly focused on the mechanics of container creation. Rather, its primary purpose is to describe a container architecture and the relationship between content and metadata (including structural data), and between content and metadata containers. The reason why structural data about a content container exists is to:

(a)   organise existing content containers so that they conform with it, or

(b)   make new content containers that conform with it, and then,

3

138

(c)   to interpret content containers that conform with it.

The second of these uses, that is the creation of new content containers in accordance with the structural data, discloses step [A1] of claim 21.

20   I will now discuss step [A2]. The Warwick paper suggests SGML as a means to express the metadata described in the Warwick paper. See section 9.3 on pp. 18-21, titled "SGML Implementation" which sets out an example SGML DTD. I discuss SGML and DTDs in paragraphs [47] to [53] of my First Affidavit.

21   An SGML DTD is suited to express "structural data" in a similar way as used to express other types of metadata in the example on p. 20 of the Warwick paper. In fact, the Warwick paper points out that SGML's DTDs:

    ... define the allowed structure and combinations of structures in a document (p.18).

22   As part of their native capability, SGML DTDs may be used to specify which content elements are required and which are optional. For example, a "+" following an element description indicates that the element is required at least once. A "?" indicates that the element is optional. (This is illustrated in Fig. 7 of the Warwick paper, which designates with a "+" that certain content elements are required at least once).

23   The "+" and "?" are called "occurrence indicators" in SGML. They specify whether the inclusion of a content element is required or optional in the creation of an object. By discussing SGML in the context of metadata, in my view the Warwick paper incorporates SGML's "occurrence indicators" and thus discloses step [A2] of claim 21.

24   Moreover, even if the Warwick paper did not expressly include SGML in its implementation discussion, an SGML DTD would immediately suggest itself as a way of implementing the structural data described on p. 8 of the Warwick paper. Defining the logical organization of data is one of the primary purposes of SGML. SGML's usefulness in this context would have been readily apparent in February 1997 to someone with even a basic knowledge of data structuring technologies, and would have been apparent to me if I had reviewed the Warwick paper in February 1997.

25   With respect to step [B], a content container or object ("first secure container") may be created in conformance with the structural data described in the Warwick paper. That is the obvious intention of the Warwick paper. This is a "using" of the "said descriptive data structure to organize said first secure container contents" in accordance with step [B] of claim 21.

26   Similarly, by incorporating SGML's "occurrence indicators", the Warwick paper discloses an intention that these be "used" to determine which content elements are to be included in the object or content container. Step [C] of claim 21 is thus disclosed. In any event, it is clear

4   139

that occurrence indicators might be "used" in the manner suggested by step [C] of claim 21 given that they are supported by SGML.

27   In respect of step [D] of claim 21, the Warwick paper provides on page 7 that "terms and conditions" might be associated, as a type of metadata, with a content container or object. "Terms and conditions", the Warwick paper explains, are "rules for use of an object". To the extent I can tell from the Patent's specification, these "terms and conditions" are the same as the "rules" referred to in step [D] of claim 21.

28   Step [D] of claim 21 also requires that the rules are either "generated" or "identified". In the Warwick paper, the "rules" are applied to an "object". "Generat[ing]" or "identifying" the "rule" are steps that precede the application of the rule to an object. Before the "rule" is applied to an object, it must have been either "generated" or "identified".

29   I am therefore of the opinion that the Warwick paper discloses each and every step of claim 21.

The Bento specification with respect to claim 21

30   The Bento specification is attached to my First Affidavit as Exhibit MJH-14.

31   I explained in my First Affidavit that the Bento specification is a well-known specification developed by Apple Computing for the storage and interchange of compound content. The Bento specification is used to give structure to containers that contain different types of content elements, such as word documents, pictures and spreadsheets.

32   The Bento specification describes containers that are used to store this compound content, and defines an "Application Programming Interface" ("the Bento API") by which these containers can be created and accessed.

33   Thus, the Bento API represents a method of creating Bento containers.

34   Like the Patent, the Bento specification focuses on the structure, rather than the security, of these containers. The structure of content in a Bento container may be organized according to what the Bento specification variously describes on p.58 as a "description mechanism", "template", "grammar" or "type description".
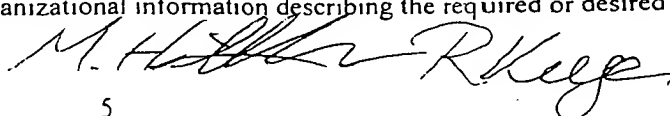
35   The Bento specification expressly discloses SGML as a way to implement this "template":

   A template or grammar for a type

   This allows applications that have never seen this type before to parse values of that type and potentially get useful information out of them. Examples of description mechanisms that could be used in this way are ASN.1 and SGML. (p.58)

36   As I discussed in paragraphs [20]-[24] of this affidavit, SGML DTDs are used to address:

   (a)   the logical structure ("organizational information describing the required or desired

5   13

organization of a content section") of data - step [A1] of claim 21; and

(b)   whether ("metadata information") the inclusion of a content element ("one step") is required or not ("required or desired") - step [A2] of claim 21.

37   The Bento specification illustrates these features by reference to SGML.

38   Alternatively, the "metadata information" referred to in step [A2] of claim 21 may be found in the "properties" described on page 14 of the Bento specification:

Properties are like field names in a record or struct, with two differences. (p.14)

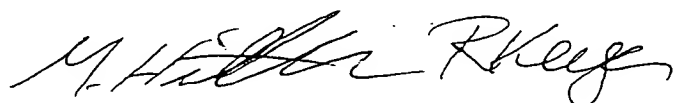(The "two differences" are not relevant to the Patent.)

39   It was in February 1997 (and still is) common for certain fields in a record or struct to be designated as "required". Fields in a record, such as in an Oracle relational database, may be specified as "NOT NULL" (i.e. cannot be left blank, and are therefore "required"). For example, the "customer_name" field in a table of "customers" may be specified as "NOT NULL", perhaps because a "customer" record without a "customer_name" is useless. The "fax_number" field, on the other hand, might not be specified as "NOT NULL" because it is less critical. In fact, every relational database table usually has at least one field that is "required", usually called the index field. This index field is used to define the relationship between tables in the relational database, and exists in virtually every relational database table.

40   Similarly, fields in a *struct*, such as in the C++ programming language, may be specified as required in the same way that properties of an object in C++ may be.

41   I therefore conclude that Bento properties may be, as fields in a record or *struct* may be, specified as "required" or otherwise. Thus, the Bento specification discloses the "metadata information" of step [A2] of claim 21. As an aside, I note that the Bento specification makes explicit reference to Bento's reliance on "metadata" (p.2).

42   I also note that "types", which are described by the "description mechanism", "template", "grammar" or "type description" discussed in paragraph [34]-[35] above, must be "registered before they can be used" (p.28). One reason descriptors such as "templates" are registered in a networked environment is so other computers can be aware of them. In this instance, other computers would need to be aware of a registered "template" so they can create objects in conformance with that template, and so they can understand objects sent to them that conform with that template. This is consistent with claim 21, which is about creating a "secure container" (a Bento container) in accordance with a "descriptive data structure" ("template").

43   On the basis of paragraphs [34]-[42] above, I conclude that step [A] of claim 21 is disclosed by the Bento specification.

6   131

44   Steps [B] and [C] of claim 21 requires that the descriptive data structure described in step [A] is "us[ed]". Invoking the Bento API (known in the computer science industry as "making a call to the Bento API") will result in the descriptive data structure and metadata information discussed in paragraphs [34]-[42] being "used". To be "called" is the purpose of the Bento API. It is clear that the Bento specification intended that the Bento API be "called", and therefore that the descriptive data structures and metadata information be "used".

45   Step [D] of claim 21 is also disclosed by the Bento specification. Under the title "How You Can Use Bento", the Bento specification discloses using the Bento "mechanism" to encrypt sensitive financial information. The Bento specification goes on to explain that, in this scenario, "only the users who need to be able to access it" would have a decryption key. See page 4 of the Bento specification. In my view, this is an example of a "rule" as described in step [D] of claim 21.

46   The Bento specification does not expressly set out how a Bento container might be secured, other than that content might be "encrypted". See paragraph [45] above. If a container may be "secure" by being encrypted, the Bento specification satisfies this requirement of claim 21.

47   Alternatively, I note that the '733 patent refers to "Bento" when it discusses containers. See paragraphs [276] and [277] of my First Affidavit. As I set out in those paragraphs, I understand from the '733 patent that the "secure containers" disclosed in the '733 patent could be implemented using Bento containers. This '733-Bento combination would satisfy claim 21's requirement that the container is a "secure container".

48   I am therefore of the opinion that the Bento specification discloses each and every step of claim 21.

CLAIM 24

49   Claim 24 is as follows:

"A method as in Claim 21, in which:

     [A] said creation of said first secure container occurs at a first data processing arrangement located at a first site;

          [A1] said first data processing arrangement including a communications port; and

     [B] said method further includes:

          [B1] prior to said step of accessing said descriptive data structure, said first data processing arrangement receiving said descriptive data structure from a second data processing arrangement located at a second site,

          [B2] said receipt occurring through said first data processing arrangement communications port."

132

50 Claim 24 is dependent on claim 21. As I understand it, claim 24 adds to the method claimed in claim 21 the requirements that:

(a)   the secure container is created at a first computer that has a communications port; and

(b)   the secure container is created according to a descriptive data structure received through the first communications port from a second computer at a remote site.

51 The step of receiving a descriptive data structure through a "communications port" is not found in the specification of the Patent. Nor is the term "communications port" used or defined in the Patent. I refer to paragraph [296](a) of my First Affidavit.

52 "Communications port" is a very broad term. It includes any interface through which a computer can accept input or provide output. It includes, for example, a serial port by which a keyboard might be connected to a computer, or a network port used to connect a computer with a network of computers, or a disk drive interface. In my opinion, the Patent is seeking a very broad scope by using the term "communications port". The most likely example of a communications port contemplated by the Patent is a network port.

53 In short, I understand claim 24 to add to claim 21 the step of receiving the descriptive data structure, for example, from another computer via a network port or a floppy disk. In respect of the "receiving" element of claim 24, I will focus on the step of receiving a descriptive data structure via a network port for the remainder of this affidavit.

54 Networks are not new, and were not new in February 1997. All of the prior art cited in my First Affidavit, and this affidavit, presumes and impliedly disclose the existence of a network. Distributing digital data of any kind across networks is not new, and was not new in February 1997. Networks exist so that data may be sent across them.

55 I will now discuss the following publications in relation to claim 24:

(a)   the '733 patent, which is Exhibit MJH-9 of my First Affidavit;

(b)   the Warwick paper, which is Exhibit MJH-11 of my First Affidavit.

56 For the reasons set out below, I am of the opinion that each of these publications, when read individually, disclose each and every step of claim 24.

The '733 patent with respect to claim 24

57 I discussed in my First Affidavit how the "descriptive data structure" of claim 21 is disclosed by the '733 patent's description of a "template". Templates define the structure of content in a secure container, and may also specify required content. See paragraphs [165]-[172] of my First Affidavit.

58 The '733 patent explains that these "templates" may be sent by the repository to the content

author so that a VDE content container ("first secure container") can be created in conformance with them:

> For example, if content submitted by author 3306A consists of a periodical publication, a template delivered to the author by the repository 3302 ... may be used as an aspect of an authoring application ... in creating a VDE content container for such a periodical. (p.829, line 8)

59   "[D]elivered" in this passage means that the template is "delivered over a network". I conclude this from Figure 78 of the '733 patent, which this passage describes. The "repository 3302" in Figure 78 is said to be:

> ... connected to a network 3304 that allows authors 3306A .... to communicate with the repository 3302...(p.821, line 3)

60   I concluded in my First Affidavit that the '733 patent discloses claim 21. On the basis of that conclusion, and paragraphs [57]-[59] in this affidavit, I am of the opinion that the '733 patent also discloses claim 24.

The Warwick paper with respect to claim 24

61   In paragraph 230 of my First Affidavit, I concluded that the Warwick paper discloses the distribution of metadata containers across a network such as the Internet. Metadata containers hold metadata, including structural data. As I discussed in paragraph [16]-[24] of this affidavit, structural data is the same as the "descriptive data structure" in claim 21.

62   Accordingly, I conclude that the Warwick paper discloses the receiving of a descriptive data structure through a network port from a remote computer and, therefore, discloses claim 24.
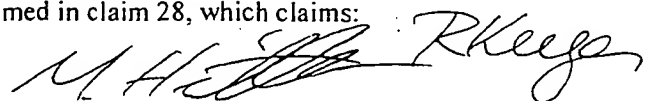
CLAIMS 27 AND 28

63   Claim 27 is as follows:

"A method as in Claim 24, further comprising,
> at said first processing site, receiving said metadata through said communications port."

64   Claim 27 is dependent on claim 24, which is in turn dependent on claim 21.

65   In claim 24, a descriptive data structure (which is said in claim 21 to "include[e]" or "address[]" metadata information) is received from a remote computer via a communications port. Now in claim 27, metadata information is received in the same way. The only way I can understand claim 27 is if the descriptive data structure in claim 24 does not "include" but rather "addresses" (that is, points to) the metadata information, which is received separately from the descriptive data structure.

66   This is, however, precisely what is claimed in claim 28, which claims:

9   134

"A method as in Claim 27, in which,

said metadata is received separately from said descriptive data structure".

67   I do not understand how claims 27 and 28 are different, or why the Patent has effectively repeated the same concept. The Patent is unclear about many things, and there appears to be several drafting errors in the Patent. See paragraphs [51], [71], [74] and [77] of this affidavit, and paragraphs [134], [137], [142], [144], [148] and [207] of my First Affidavit. I am unsure as to whether this repetition is simply a drafting error.

68   Given that claim 27 and 28 are identical in substance, I will discuss claims 27 and 28 together.

69   There are several uncertainties in claims 27 and 28.

70   Claim 21 uses the term "metadata information". Claims 27 and 28 (which indirectly depend on claim 21) use the term "metadata". Claims 27 and 28 are unclear as to how "metadata" is different to the "metadata information" in claim 21. Because different terms are used, one might assume they have different meanings.

71   Although the Patent is ambiguous in this regard, it is also possible that this is a drafting error and that claims 27 and 28 were intended to refer to the same "metadata information" as is referred to in claim 21. Claim 27, for example, references the "said metadata" but there is no prior reference in claims 21 or 24 to "metadata".

72   The Patent specification does not clarify this issue. The Patent specification does not use the term "metadata information" at all, and uses the term "metadata" in various and inconsistent ways (see paragraphs [121] - [122] of my First Affidavit.) I cannot tell from the Patent specification whether "metadata information" and "metadata" are intended to mean different things.

73   Because claim 27 as written is unclear, I will assume that claims 27 and 28 mean that the metadata information (not metadata, if that is a different thing) is received in the same way that the descriptive data structure in claim 24 is received. The Patent specification provides no clarity in relation to this issue.

74   The Patent specification is also silent on how the metadata may be "received separately" from the descriptive data structure. The Patent specification explains that metadata may be "stored" separately from the descriptive data structure (p.36, line 5), but not how metadata that is "received separately" is referenced by the descriptive data structure. How claims 27 and 28 are to be implemented is not described or explained in the Patent.

75   By way of illustration, in the scenario contemplated by claims 27 and 28, METADATA 264 is not received with OBJECT NAMES 262 in container 100 as described in Fig. 7 of the Patent. Rather, according to claims 27 and 28, METADATA 264 is received separately from

135

OBJECT NAMES 262, presumably in a different file or stream or secure container. The Patent is silent on how a computer using OBJECT NAMES 262 might know where to find the METADATA 264 that relates to the objects named by OBJECT NAMES 262. The appropriate METADATA 264 might be anywhere, for example, on the Internet.

76   The Patent is incomplete in this respect. Referencing is an important aspect, and one of the more difficult technical issues, in a distributed environment. There are many ways a descriptive data structure might reference or locate a separately received metadata file, but I cannot tell from the Patent which method is appropriate to the Patent's claims. The Warwick paper, for example, discusses the use of URI's to reference an external set of metadata (Figure 3, p.12). The Patent, however, says nothing on this point.

77   I also cannot tell from reading the Patent how the metadata is "received" in claim 28. Is it "received" via the same communications port that is used to receive the descriptive data structure? In the absence of guidance to the contrary, I will read "received" in claim 28 as including "received in the same manner as the descriptive data structure is received in claim 21".

78   Whichever of the meanings set out in paragraphs [70]-[77] of this affidavit is correct, the method in claims 27 and 28 is disclosed in the Warwick paper. I will now discuss the Warwick paper below, in relation to claims 27 and 28.

The Warwick paper with respect to claims 27 and 28

79   The Warwick paper discloses claims 27 and 28 at Figure 11 of the Warwick paper. The Warwick paper discloses that MetaDataContainers holding metadata (such as structural data) exist at different levels:

> Note that a digital object contains two sets of metadata containers. One is at the object level, holding metadata relating to the digital object as a whole. Another set is attached to each content element, holding metadata relating to that specific piece of content. (p.24; see also Figure 11).

80   Accordingly, in the framework described in the Warwick paper, a MetaDataContainer may hold structural data relating to the whole object in the form of, for example, an SGML DTD. See paragraphs [20]-[24] above. This DTD might define the logical structure ("descriptive data structure") of the entire object.

81   The object might, as it does in Fig. 11, include another MetaDataContainer at a lower level that relates only to one of the ContentElements within the object. This MetaDataContainer might hold its own SGML DTD that defines which of the content fields within the ContentElement are "required" and which is not ("metadata information"). This could be done using "occurrence indicators". "Occurrence indicators"

11

136

are a central feature of SGML. They are illustrated by reference into the Warwick paper. See paragraphs [22]-[23] above.

82   Alternatively, the Warwick paper expressly discloses that separate sets of metadata relating to a given content container might be containerised into different metadata containers. See Figure 3 of the Warwick paper on page 12. For example, the structural data referred to on page 8 of the Warwick paper ("descriptive data structure") might be in one of the metadata containers shown in Figure 3, and other metadata such as descriptive cataloguing metadata or relationship metadata ("metadata information") might be in the other metadata container. As in Figure 3 of the Warwick paper, both sets of metadata would be in respect of the same content container.

83   The metadata containers described in paragraphs [79]-[81] and [82] above are different containers. See Figures 3 and 11 of the Warwick paper. This satisfies the "separat[ion]" requirement of claims 27 and 28. This is confirmed on page 11 of the Warwick paper:

> An *externally-referenced* metadata container is metadata that may well be created and maintained by an authority separate from the creator or maintainer of the content object. In fact, the creator of the object may not even be aware of this metadata. There may [be] an unlimited number of such externally-referenced metadata containers.

84   Accordingly, I conclude that the Warwick paper discloses that the descriptive data structure and metadata may be received separately as recited in claims 28 and 28.

CLAIM 31

85   Claim 31 is as follows:

"A method as in Claim 21, in which:
        said specific information required to be included includes information at least in part
        identifying at least one owner or creator of at least a portion of said first secure
        container contents."

86   Claim 31 is dependent on claim 21. My understanding of claim 31 is that the "said specific information required to be included" is the information referred to in step [C] of claim 21. This information is, in turn, said to be determined based on the "metadata information" referred to in step [A2] of claim 21.

87   Thus, in claim 31, "metadata information" specifies that information that identifies the owner or creator of content is "required to be included" in the first secure container.

88   I note that the word "or" is used between "owner" and "creator". I understand this to mean that specifying either (but not necessarily both) the "owner" or the "creator" as being "required" will satisfy claim 31.

89   In my view, claim 31 is merely an application of known techniques for their known purpose.

90   In my view, claim 31 adds nothing of substance to claim 21. Every document would have a creator. Claim 31 selects one possible well-known content element (owner/creator) and states that the element is required. I can conceive of an infinite number of content elements that might be specified as "required". Enumerating one of these content elements does not add anything. Claim 31 could equally have specified that the author's "mother's maiden name" was "required", and it would have taught me nothing more. The Patent does not explain why specifying the owner/creator as a required content element is advantageous, or how this should be done.

91   "Metadata information" of the type referred to in step [A2] of claim 21 was disclosed and used prior to February 1997. SGML DTDs can use "occurrence indicators" to specify which content element is required and which content is optional. See paragraph [22]-[23] above. Relational databases can specify in their schema which fields ("content elements") are required and which fields are optional. See paragraph [39] above. This is common in Australia, and was common in Australia in February 1997.

92   It was also common in Australia in February 1997 to specify the owner or creator of that content. Tables in relational databases are "owned" by known users. File structures, such as those used by Unix operating systems, have defined the files' "owners" since well before the 1990's. In these contexts, "owners" are typically assigned for the purposes of authorization and accountability.

93   Moreover, the '733 patent, Warwick paper and Bento specification each, when read individually, expressly disclose this. I will now discuss these publications in relation to claim 31.

The '733 patent with respect to claim 31

94   The '733 patent uses templates and VDE creation software to guide the creation of VDE containers ("first secure container") by content creators. This is done by, amongst other things, specifying required information:

> Employing VDE creation software ... and <u>VDE templates</u>, users may create VDE objects 300 by, for example, ... placing "meta data" (e.g. <u>author's name</u> ...) into them and assigning rights associated with them and/or object content to, for example, a publisher and/or content creator. When an object creator runs through this process, she normally will go through a content specification procedure which will <u>request required data</u>. (p. 751, line 23 to p.752, line 6; emphasis added)

95   This passage is unclear whether VDE templates specify that metadata such as the author's name is "required", or whether it is added automatically. In either case, the author's name ("information identifying at least one owner or creator") is added to the VDE container ("first

13

secure container") regardless of the creator's will. In my opinion, this is "required" within the meaning of claim 31. In my view, the author's name is the same as the creator referred to in claim 31.

96 I therefore conclude that the '733 patent discloses claim 31.

The Warwick paper with respect to claim 31

97 The 13 elements of the Dublin Core, on which the Warwick paper builds, include "Author" and "Publisher". (See Figure 1 on page 4 of the Warwick paper.) These are equivalent in substance to the Patent's "creator" and "owner".

98 The Warwick paper makes clear that the Dublin Core fields are a type of metadata and therefore may be included in the metadata containers discussed in paragraph [79]-[83] above:

> Descriptive cataloging is but one of many classes of metadata. (p.7)

99 The Warwick paper also considers the question of whether a metadata set such as the Dublin Core should be defined loosely where fields are "optional" or "desired", or whether its syntax should be imposed as "required":

> *Should the syntax of the Core be strictly defined or left unstructured?* (p.7)

100 The answer following the Dublin Workshop in 1995 was that syntax should not be specified, and that all fields should be optional:

> With no definition of syntax and the principles that "everything is optional, everything is extensible, everything is modifiable" the Dublin Core definition does not even approach the requirements of a standard for interoperability. (p.5)

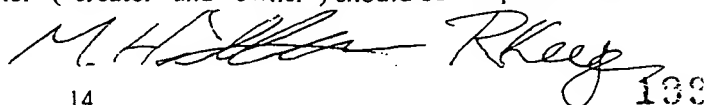This position was modified at the Warwick Workshop in 1996 where it was suggested that:

> [W]ithout a more concrete definition of the syntax, the Dublin Core does not provide the level of interoperability for which it was intended. (p.7)

101 The Warwick paper goes on to explain that "concrete" syntaxes might be specified by different "communities":

> **6.3 Different communities will propose, design, and be responsible for different types of metadata**
>
> Some classes of metadata may exist to meet specific legal or regulatory requirements ...The separate origin and administration of different metadata sets will result in very divergent syntax and notation. For some types of metadata, such as descriptive cataloging data, static textual representations will be sufficient. Others may be expressible only through more powerful means, such as executable (or interpretable) programs. (p.8)

102 Regardless of the answer arrived at by conference delegates, the issue of whether syntax and fields such as "Author" and "Publisher" ("creator" and "owner") should be "required" had

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been considered and disclosed prior to February 1997 in the Warwick paper. Both answers to this question ("yes" or "no") were publicly considered in 1996 in the Warwick paper.

103   For these reasons, I am of the opinion that claim 31 is disclosed by the Warwick paper.

The Bento specification with respect to claim 31

104   The Bento specification teaches that a Bento container may have a "property" identifying the creator or owner:

> For example, different properties of an object might indicate the ... author of the object. (p.14)

105   As I concluded in paragraph [39]-[41] of this affidavit, like a *struct* or a field in a database, a Bento container may specify that a "property" is "required". Thus, the passage cited above in paragraph [104] discloses that the Bento container may specify that the "author of the object" ("creator") is "required to be included".

106   As I explained in paragraph [88], this is sufficient to disclose claim 31.

CLAIM 32

107   Claim 32 is as follows:

"A method as in Claim 21, in which:
        [A] said specific information required to be included includes a copyright notice."

108   Claim 32 is the same as claim 31, except that "copyright notice" replaces "information at least in part identifying at least one owner or creator of at least a portion of said first secure container contents".

109   The specification of the Patent does not disclose step 32. The Patent specification discusses the display of a copyright notice in two places, but does not disclose a step requiring inclusion of a copyright notice when the secure container is created. The Patent specification does not explain why a copyright notice should be required, or how this should be done.

110   Claim 32 is not new. It is disclosed by the '733 patent and the Bento specification, which I will now discuss.

The '733 patent with respect to claim 32

111   The '733 patent, like the Patent, is broadly directed at the management of digital rights. Copyright in a digital work is a digital right.

112   A copyright notice is the most simple method of managing copyright in a work that I am aware of. I would expect that every person with a tertiary education, including graduates of computer science degree programs, would be aware of the relevance of a copyright notice to the intellectual property rights in the work (although they may not precisely understand the

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nature of those rights). Requiring that a copyright notice be attached to a work, regardless of whether the work is in a digital or conventional form, is a well-known method of protecting copyright in the work.

113   The '733 patent recognises this traditional role of copyright law in managing digital rights. It suggests that VDE control information might include clauses requiring the observation of copyright:

> These agreements ... may include "static" electronic assertions, such as ... agreeing to comply with copyright laws. (p.40, line 16).

114   I therefore conclude that the '733 patent discloses claim 32.

The Bento specification with respect to claim 32

115   The Bento specification provides that a Bento container may include a "property" setting out a copyright notice:

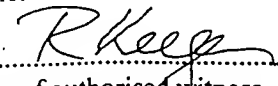> For example, different properties of an object might indicate the ... a copyright notice, etc. (p.14)

116   As I concluded in paragraph [39]-[41] of this affidavit, a Bento container may have metadata information specifying that a "property" is "required".

117   Thus, the Bento container may specify that the copyright notice disclosed in the passage cited in paragraph [115] above is "required to be included".

118   I therefore conclude that claim 32 is disclosed by the Bento specification.

119   I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have, to my knowledge, been withheld from the Court.

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120 Mallesons provided me with the *Guidelines for Expert Witnesses in Proceedings in the Federal Court of Australia* and I confirm that I have abided by those Guidelines in preparing this affidavit.
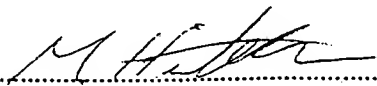
SWORN at SYDNEY)
before me:)
)
....)
Signature of authorised witness)
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....)
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Capacity in which authorised witness takes the   Signature of Deponent
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